La Revue Agricole

DE L'ILE MAURICE

Orgáne Officiel de la Société des Chimistes,
de la Chambre d'Agriculture, de la Société des Eleveurs
et de la Section du Petit Elevage

REVUE BIMESTRIELLE

PUBLIÉE SOUS LA DIRECTION D'UN COMITÉ
AVEC LA COLLABORATION DU DÉPARTEMENT D'AGRICULTURE

RÉDACTEUR EN CHEF

P. DE SORNAY

CHIMISTE CONSEIL

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et de Distillerie de France et des Colonies (1910, 1911, 1913),
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No. 59. Septembre-Octobre 1931

La Revue Agricole

DE L'ILE MAURICE

Les Conséquences de l'Amendement de l'Ordonnance sur le prêt consenti par l'Angleterre à l'occasion du Cyclone de Mars 1931

Quand cette Ordonnance, qui réglait les conditions du prêt consenti par l'Angleterre aux fins de réparer les dégâts causés par le cyclone de Mars 1931, fut présentée à la Législature, on était généralement sous l'impression que toutes les pertes, *directes ou indirectes*, seraient compensées par une assistance effective. Pour plus de précision, un député demanda d'y insérer une clause stipulant que l'usinier aurait le droit de bénéficier de cet emprunt.

Le Gouvernement local crut nécessaire de soumettre cet amendement au Secrétaire d'Etat qui refusa son acceptation, sous prétexte que ces conditions n'étaient pas comprises dans le projet d'emprunt voté par la Chambre des Communes.

La Chambre d'Agriculture répondit par le vote d'une Résolution exposant les motifs qui militaient en faveur de la demande des usiniers. On lira plus loin un compte rendu de cette séance de la Chambre d'Agriculture, ainsi que le texte de la Résolution.

Quand le Gouvernement présenta cette Ordonnance à la Législature, nos représentants firent entendre des protestations justifiées. L'Hon. M. P. Montocchio s'éleva énergiquement contre cette mesure qui lésait les intérêts de ceux qui firent de si lourds sacrifices à toutes les époques pour outiller leurs usines et être à même de rétribuer convenablement les planteurs en vue de les encourager à étendre leur culture et à mieux cultiver. S'appuyant sur ce que dit le Ministre, M. Montocchio s'est étonné de la contradiction qui existe entre ses paroles et son refus : " The loan is to cover damage to property, loss in stock... and loss of growing crop ".

En principe, l'assistance que nous demandions à l'Angleterre était *pour l'industrie sucrière en général, tant pour le planteur de cannes que pour le fabricant de sucre* (l'un n'allant pas sans l'autre) ; et il est étonnant que le fabricant soit mis de côté et n'obtienne pas le secours auquel il a pleinement droit. Sur 108 kilos de sucre que l'on extrait habituellement de 1000 kilos des cannes du planteur, celui-ci reçoit environ 70 kilos pour les 1000 kilos de cannes vendues à l'usinier ; si la métropole ne consent à prêter au cultivateur que la valeur de ces 70 kilos de sucre, c'est oublier les 38 autres kilos que contient son produit et ne pas vouloir se rendre compte que c'est la part revenant au fabricant pour cou-

vrir, *en temps normaux*, son coût de fabrication et lui laisser un minime profit. Dans les conditions anormales actuelles, la réduction de la quantité de cannes à manipuler fera augmenter le coût de fabrication chez l'usinier et sa perte sera encore accrue par la quantité moindre de sucre qu'il extraiera.

L'usinier doit donc, en toute justice, être dédommagé, puisque sa perte principale consistera dans le manque à gagner d'une récolte largement déficitaire en quantité et en qualité, la proportion de sucre revenant aux planteurs, comme paiement de cannes fournies, restant invariable.

L'Hon. M. Jules Leclézio fit un historique des relations qui ont existé entre l'Angleterre et notre Colonie au point de vue " affaires ". Il démontra que nous avons été de bon clients de la Métropole, nous avons toujours tenu nos engagements et que, si nous sommes si terriblement affectés par la crise sucrière mondiale, nous le devons à la concurrence déloyale qui est faite a nos sucres sur le marché anglais.

Nous ajoutons qu'au moment où tous les pays prennent des mesures pour se protéger, il semble étrange de voir un ministre refuser de faire droit à une demande équitable, ne pas se soucier de savoir quels désastres elle peut entraîner, et marchander quelques centaines de milliers de livres à une Colonie qui, par sa forte production, a le plus contribué à empêcher la hausse du sucre en Angleterre pendant la guerre.

L'Hon. M. J. Leclézio n'hésita pas à dénoncer l'injustice dont nous sommes victimes. L'Hon. M. Raffray et la majorité des députés appuyèrent les observations présentées par leur collègues Montocchio et Leclézio et votèrent contre l'amendement.

Comme corollaire de ces protestations, nous avons cru nécessaire de démontrer au moyen de chiffres que les usiniers ont été lésés d'au moins Rs 1,100,000 par cet amendment.

1— Le Recensement Agricole, fait l'année dernière par Monsieur Maxime Kœnig, Statisticien du Départment d'Agriculture, nous fournit les données suivantes :

Nombre d'arpents sous cannes à Maurice ...	... 137,182
dont, cultivés par les propriétés *avec usine* ...	... 48,525
ce qui laisse une balance de	... 88,657 arpents

cultivés par les *planteurs*, gros et petits.

Ce total de 88,657 arpents de cannes de planteurs se subdivise comme suit :

(a)	Petits planteurs sur propriétés avec usine ...	4,793 arpents
(b)	Gros planteurs : propriétés sans usine ...	38,833 „
(c)	Petits planteurs sur propriétés sans usine ...	2,834 „
(d)	Autres petits planteurs	42,197 „
	Soit, au total ...	88,657 arpents

pour les planteurs, approximativement.

2— Arpents cultivés et arpents à couper :

	Sous culture	*A couper*
(a) Propriétés *avec* usine	48,525	42,000
(b) Gros et petits planteurs sur propriétés avec et sans usine (4,793+38,833+2,834).	46,460	40,000
(c) Autres petits planteurs	42,197	37,500
Au total ...	137,182	119,500

3— En estimant un rendement moyen de :

(a) 23 tonnes par arpent pour les propriétés avec usine,
(b) 18 „ „ „ pour les planteurs sur propriétés,
(c) 12 „ „ „ pour les planteurs hors des propriétés,

nous aurons :

(a) 42,000 arpts. à 23 T. de cannes = 966,000 T. cannes propriétés avec usine
(b) 40,000 „ à 18 T. „ „ = 720,000 T. Planteurs
(c) 37,500 „ à 12 T. „ „ = 450,000 T. Planteurs

119,500 ar. à couper annuellement = 2,136,000 Tonnes Cannes

dont 1,170,000 tonnes cannes planteurs à manipuler annuellement dans nos 42 usines.

4— Ces 2,136,000 tonnes de cannes, à une extraction moyenne de 10.80% de sucre, produisent 230,688 tonnes de sucre ; disons 230,000 *tonnes* comme production annuelle de la colonie.

5— L'Emprunt accordé par l'Angleterre, à la suite du cyclone, devait compenser les pertes subies en cannes et en sucre, ainsi que les dommages aux bâtiments. Les propriétés, avec usine, qui ne manipulent rien que les cannes *cultivées par elles-mêmes* sont indemnisées, tandis que l'usine centrale, qui ne manipule que des *cannes achetées,* n'aura droit à aucun secours. Cependant, cette usine compte sur une quantité déterminée de cannes pour son opération, et quand, par les effets d'un " Act of God ", cette quantité se trouve réduite d'environ 25%, il est évident que c'est un manque à gagner pour elle ; car son coût de fabrication augmentera alors dans une sérieuse proportion.

6— Les dépenses encourues par une usine se classent ainsi :

(a) Surintendance et main-d'œuvre,
(b) Produits chimiques (Soufre, Chaux, Superphosphate, etc.)
(c) Combustible,
(d) Gonis, sacs de vacoa, fil, etc... (emballage),
(e) Réparations de machineries, nettoyage, entretien, quincaillerie, etc.
(f) Réparations des bâtiments,
(g) Transport des sucres à Port Louis,

(h) Assurance, taxes, etc.,
(i) Divers transports et Sidings Mauritius Railways, etc.,
(j) Dépenses pour Hôpital,
(k) Dépenses pour Administration et frais généraux.

7—Dans toute industrie la fabrique devra travailler à plein rendement pour assurer le coût de fabrication le plus bas. L'usine à sucre qui compte sur 50,000 tonnes de cannes à manipuler par campagne, se trouve donc fortement handicapée quand ce quantum est réduit par exemple à 37,500 tonnes. Il y a certains frais qui restent fixes, quelle que soit la quantité de cannes manipulée ou celle de sucre fabriquée. Ainsi, les dépenses de Surintendance, (comprenant les employés, chefs d'équipe, gardiens, etc.) restent presque les mêmes que l'on manipule 50,000 tonnes ou 37,500. Le combustible aura tendance à augmenter avec moins de canne, car l'usine ne travaillant pas le même nombre d'heures, il faudra plus de chauffage pour la mise en train de chaque jour. L'item qui, cependant sera le plus affecté par une production réduite, est celui des " Réparations des Machineries ". Si l'on dépense Rs 40,000 à Rs 45,000 annuellement pour réparer les machineries et appareils, etc., ce débours sera le même que l'on manipule 50,000 ou 30,000 tonnes de canne, et c'est principalement cette dépense pour Réparations (que ce soit pour les machineries ou les bâtiments) qui augmente considérablement le coût de fabrication des 100 lbs de sucre, quand la production se trouve réduite.

8—Les items, pour ainsi dire *invariables*, dans les dépenses de l'usine, sont : Surintendance et main-d'œuvre ; Réparations des machineries. Réparations des bâtiments ; Assurance ; Dépenses d'hôpital ; Dépenses d'Administration et Frais Généraux.

9—Nous ne croyons pas nous tromper en estimant le coût de fabrication des 100 lbs de sucre à une moyenne de Rs 2. En produisant 216 lbs de sucre par tonne de canne (i. e. une extraction de 10.80% de la canne) cela représente Rs 4.32 par tonne de cannes manipulées, ou Rs 216,000 pour 50,000 tonnes de cannes.

10—Nous établirons maintenant une comparaison entre les dépenses d'usine pour manipuler 50,000 et 37,500 tonnes de cannes respectivement :

Quantité de cannes à manipuler	50.000 *Tonnes*	37.500 *Tonnes*
(a) Surintendance et main-d'œuvre	Rs. 55,000	Rs. 52,700
(b) Produits chimiques	4,000	3,000
(c) Combustible	5,000	4,125
(d) Gonis, Sacs, etc...	36,500	27,375
(e) Répar. machineries, nettoyage entretien, quincaillerie ...	45,000	45,000
(f) Réparations bâtiments	4,000	4,000
(g) Transport sucre	21,000	15,750
(h) Assurance	3,500	3,500
(i) Divers transports, etc.... ...	10,500	9,000
(j) Dépenses hôpital	4,500	4,500
(k) Dépenses Administration ...	27,000	27,000
	Rs. 216,000	Rs. 195,950

soit Rs. 216,000 pour 50,000 T. de Cannes, ou Rs. 4.32 par tonne
et Rs. 195,950 „ 37,500 „ Rs. 5.22 „

Avec 216 lbs. de sucre (extraction de 10.80 %) par tonne de cannes, le *coût de fabrication des* 100 *lbs de Sucre* = Rs. 2.00 dans le 1er cas
et Rs. 2.42 „ deuxième,
avec extraction inchangée.

11—Mais l'extraction a été affectée par le cyclone ; au lieu de 10.80% du poids des cannes, il est presque certain que l'on n'aura pas plus de 10.20% . En fabricant moins de sucre par tonne de cannes, il n'y aura que deux items de nos dépenses d'usine qui seront diminués : gonis pour *l'emballage* et coût du transport des sucres à Port Louis.

12—EMBALLAGE :

1er Cas : 50,000 T. Cannes à 10.80% Sucre = 5,400 T. Sucre = Rs. 36,500 (par. 10) soit par tonne de sucre Rs. 6.76

2nd Cas : 37,500 T. Cannes à 10.20% Sucre = 3,825 T. Sucre, ce qui à Rs. 6.76 pour l'emballage de la tonne donnera... Rs. 25.857 au lieu de Rs. 27,375 (voir par. 10 (d)), soit une *réduction de* Rs. 1,518.

13—TRANSPORT DU SUCRE :

1er Cas : 50,000 T. cannes à 10.80 % Sucre = 5,400 T. Sucre = Rs. 21,000 transport (par 10 (g)), soit Rs. 3.89 par tonne.

2nd Cas : 37,500 T. cannes à 10.20% Sucre = 3,825 T. Sucre ce qui à Rs. 3.89 la tonne, donnera ... ... Rs. 14,879 au lieu de Rs. 15,750 (par. 10 (g)), soit une *réduction de* Rs. 871.

La réduction totale des dépenses d'usine (*avec l'extraction inférieure de* 10.20%) ne s'élevera donc qu'à Rs 1518+871 = Rs. 2,389 montant des réductions sur emballage et transport de sucre.

14—Ayant dépensé Rs 195,950 pour la manipulation des 37,500 T. de cannes, avec extraction de 10.80% (voir par. 10), nous dépenserons Rs 195,950—Rs 2,389 = Rs 193,561 avec l'extraction à 10.20% . Cela mettra le coût de fabrication, par tonne de cannes, à Rs 5.16. Avec 204 lbs. de sucre par tonne de cannes, le coût de fabrication sera de Rs. 2.53 *par* 100 *lbs de sucre.*

15—Nous voyons donc qu'en manipulant 50,000 tonnes de cannes, à une extraction de 10.80% sucre, notre Coût de Fabrication = Rs 2.00 *par cent lbs de sucre.*

Après le cyclone, avec une réduction de 25% du poids des cannes, nous manipulons 37,500 tonnes avec une extraction réduite à 10,20% et

notre Coût de Fabrication s'élève alors à Rs. 2.53 *par cent lbs de sucre.* Disons en chiffres ronds, qu'elle soit de Rs. 2.50.

16.—Avec les données suivantes :

Prix de vente des 100 lbs de sucre ... ... Rs 6.00
Coût de Fabrication des 100 lbs de sucre ... ... Rs 2.00 sans cyclone
et ... ... Rs 2.50 après cyclone

Taux d'acquisition des cannes des planteurs : 70 lbs de sucre par 1000 lbs cannes, ou 70 ks sucre par tonne cannes

Réduction de 25 o/o sur quantité de cannes à manipuler

Extraction de 10.80 o/o des cannes, sans cyclone

Extraction de 10.20 o/o „ „ après cyclone

Nous comparerons les résultats financiers :

1o d'une usine Centrale ne manipulant *que des cannes de planteurs.*

2o d'une usine manipulant 75 o/o de cannes de la propriété et 25 o/o de cannes de planteurs.

17 USINE CENTRALE : 50,000 *tonnes de cannes* (*sans cyclone*)

(a) SANS CYCLONE.

50,000 T. Cannes à 10.80 Sucre extrait = 5,400 T. Sucre
à Rs 120 la tonne ... ... = Rs 648,000

Moins :

1o Acquisition de 50,000 T. Cannes au taux de 70 ks par tonne (ou Rs 8.40 par tonne) = Rs 420,000

2o Coût de fabrication de 5,400 T. Sucre à Rs 2 les% lbs = Rs 40 la tonne de sucre = „ 216,000

Total des dépenses 636,000

636,000

Profit de l'Usine ... ... Rs 12,000

(b) APRES CYCLONE :

25% réduction sur poids cannes et extraction de 10.20%
37,500 T. cannes à 10.20% Sucre extrait =
3,825 tonnes sucre à Rs. 120 la tonne ... ... Rs. 459,000

Moins : 1o. Acquisition des 37.500 T cannes
au taux de 70 K Sucre par tonne
(Rs. 8.40 la tonne) ... ... Rs. 315,000

2o. Coût de fabrication de 3,825 T. sucre
à Rs.2.50 les% lbs = Rs.50 par tonne
de sucre 191,250

506,250

Soit *Perte* de l'Usine de ... ... Rs. 47,250

Le cyclone a donc fait l'usinier perdre Rs. 47,250, sur les 50,000 tonnes de cannes qu'il aurait manipulées en saison normale, soit R. 0.94 par tonne de cannes de planteurs.

18. USINE MANIPULANT 75% CANNES PROPRIÉTÉ ET 25% PLANTEURS :

(Usine de 40,000 tonnes cannes —sans cyclone— dont 30,000 pour la propriété et 10,000 pour les planteurs).

SANS CYCLONE :

(a) 30,000 T. Cannes propriété à 10.80% sucre extrait =
3,240 T. Sucre à Rs 120 la tonne ... ... = Rs 388,800

Moins : 30,000 T. Cannes propriété, achetées par
l'usine à 70 K. Sucre par tonne ou à
Rs 8.40 la tonne ... ... Rs 252.000
Coût de fabrication de 3,240 T Sucre,
à Rs 2 les % lbs = Rs 40 la tonne 129,600 381,600

Profit Usine S/Cannes propriété ... ... Rs 7,200

(b) 10,000 T. Cannes planteurs à 10.80% Sucre extrait =
1,080 Sucre à Rs 120... ... ... Rs 129,600

Moins : Acquisition 10,000 T. Cannes planteurs à
70 Ks sucre ou à Rs 8.40 la T Rs 84,000
Coût de fabrication de 1,080 T. Sucre,
à Rs 2 les % lbs = Rs 40 la tonne 43,200 127,200

Profit Usine : s/cannes planteurs ... ... Rs 2,400

APRES CYCLONE : 25% de réduction sur poids cannes.

(Propriété : 22,500 T. Cannes ; planteurs : 7,500 T = 30,000 T. Cannes).

(22,500 T. Cannes propriété à 10.20% sucre extrait =2,295 T. Sucre à Rs 120 la tonne ... ... Rs 275,400

Moins :

Acquisition 22,500 T. Cannes propriété par Usine au taux de 70 Ks Sucre ou Rs 8.40 par tonne... ... ... Rs 189,000

Coût de fabrication de 2,295 T sucre à Rs 2.50 les % lbs ou Rs 50 la T. ... 114,750

303,750

Pertes Usine s/ Cannes propriété ... Rs 28,350

(b) 7,500 T. Cannes planteurs à 10.20% sucre extrait = 765 T sucre à Rs 1.20 la tonne ... ... Rs 91,800

Moins :

Acquisition 7,500 T. Cannes planteurs à 70 Ks sucre ou Rs 8.40 par tonne ... ... = 63,000

Coût de fabrication de 765 T. Sucre à Rs 2.50 les o/o lbs. ou Rs 50 la T. 38,250

101,250

Perte Usine s/ Cannes planteurs ... Rs 9,450

19. Ne nous occupons que des cannes de planteurs, puisqu'il y a eu compensation pour les cannes de la propriété. Nous voyons ici que l'usinier a perdu Rs 9.450 sur les 10,000 tonnes qu'il aurait manipulées en saison normale, c'est-à-dire, R. 0.94 par tonne de cannes de planteurs.

20. Ayant à Maurice 1,170,000 tonnes de cannes de planteurs, gros et petits, (voir par. 3 b.c.) à manipuler dans nos 42 usines, si nous comptons à R. 0.94 par tonne de cannes le manque à gagner des usiniers causé par le cyclone de Mars 1931, nous arrivons au chiffre de Rs 1,099,800.

L'année dernière, la moyenne générale d'extraction a été de 10.92 o/o du poids de la canne. Certaines usines ont même obtenu des extractions dépassant leurs estimations, mais nous avons préféré considérer la moyenne normale comme étant de 10.80. Nous ne croyons pas nous tromper en fixant la récupération de cette récolte à 10.20. Il est facile de se rendre compte que la perte de Rs 1,100,000 serait largement dépassée, si nos calculs étaient basés sur l'extraction de 1930. Elle le sera encore davantage si nos prévisions, au sujet de l'extraction, sont au-dessus de la réalité.

En terminant, nous espérons que les autorités analyseront en détail l'exposé que nous avons fait et qu'elles reconnaîtront combien fondées étaient les protestations de nos représentants.

P. DE SORNAY F. NORTH COOMBES

Nos Bois de Construction et de Menuiserie.

En 1924, la Revue Agricole (No 16) publiait une note sur le Bois de Natte, qui est l'essence dominante de nos forêts primitives, à Maurice, et notre principal bois de construction. Sans entrer cette fois dans des descriptions détaillées, nous allons énumérer rapidement les autres bois d'essences indigènes et d'essences exotiques qui s'emploient dans la colonie pour les travaux de construction et de menuiserie.

A.—*Bois de Charpente*

Parmi les essences indigènes, les bois suivants ont été l'objet d'études méthodiques faites, en 1927, à " l'Imperial Institute " de Londres par M. Philip Harris, qui nous donne la mesure de la résistance des matériaux en une échelle de comparaison très utile.

	Densité (sec à l'air) g/cm3	Flexion Statique			Compression parallèlement aux fibres. Taux de fatigue à la rupture Kg/mm2	Cisaillement. Taux de fatigue Kg/mm2
		Taux de fatigue à la limite d'élasticité Kg/mm2	Taux de fatigue à la rupture Kg/mm2	Module d'Elasticité Kg/mm2		
Natte	0,848	4,96	11,52	1,360	6,28	0,878
Tambalacoque ...	0,883	7,03	14,82	1,756	6,55	1,019
Colophane ...	0,813	—	3,92	407	3,95	1,026
Pomme ...	0,547	3,95	6,64	756	3,97	0,695
Clou	0,978	5,38	16,77	1,549	7,05	1,381
Sandal	0,891	6,44	10,18	1,300	6,26	0,324
Lousteau ...	0,614	5,53	8,84	1,159	4,63	1,048
Ebène marbré ...	0,768	3,78	5,55	1,007	4,43	1,068

Le Bois de Natte (*Imbricaria maxima*, l'oir. A. D. C.) est surtout apprécié pour sa résistance dans les conditions adverses d'exposition (humidité, chaleur etc). Bois de fente, il donne des bardeaux durables. D'un rouge pâle ou d'un brun rougeâtre, il a un grain fin, se tourne et se polit bien.

Le Tambalacoque (*Sideroxylon grandiflorum*, A. D. C.) est très dur, lourd, d'une couleur jaunâtre, avec des marques brunâtres. Il a un grain fin et serré, mais se tourne et se polit bien et prend une surface lustrée.

Le Colophane (*Canarium Colophania*, Baku) a une couleur brun rougeâtre, qui brunit en vieillissant. Il est surtout réputé comme bois de charronnage,—madriers et jantes.

Le Sandal (*Noronhia Broomeana*) est devenu très rare, et donne surtout des moyeux de grande résistance.

Le Bois de Pomme (*Eugenia*) est la pièce de valeur moyenne par excellence, et donne aussi de bonnes planches.

Le Bois Clou (*Eugenia cotinifolia*, Jacq.) est un bois dur à travailler, ayant un grain fin et serré, et est recherché pour les chevilles et autres pièces de résistance.

Le Bois Lousteau (*Antirrhoea verticillata*, D. C.) a des propriétés similaires à celles du bois de Pomme.

L'Ebène marbré (*Diospyros melanida*, Poir.) donne des planches de valeur, tachetées de marbrures noires irrégulières, et est assez apprécié comme plancher et pour l'ameublement.

Parmi les essences exotiques acclimatées dans le pays et servant pour la charpente, nous avons :

Le Filao (*Casuarina equisetifolia*, Forst.) doit avoir du "cœur" et avoir très peu d'aubier pour la charpente, ce qui implique au moins 20 ans d'âge pour les arbres à débiter en pièces carrées. Il tient mal quand il est exposé à l'humidité, et est surtout utile pour le comble, les solives, etc.

L'*Eucalyptus tereticornis* (Red Gum), l'*E. robusta*, abattus en hiver, après 20 ans d'âge au moins et convenablement séchés, donnent des bois utiles pour la construction, à R. 1.25 le pied cube équarri.

Sur le marché de Port-Louis, le bois importé le plus en faveur est le (Swan River) Mahogany, qui est probablement l'*Eucalyptus diversicolor* et que nous recevons en abondantes cargaisons de Freemantle (Australie occidentale), depuis un demi-siècle, en sciages impeccables et de toutes dimensions, connu sous le nom de *Karri*. S. L. Kessell, Conservateur des Forêts à Perth, lui assigne les propriétés suivantes :

Poids par pied cube (12 o/o d'humidité) : 58 lbs.
Flexion transversale (Transverse strength) : 17,300 lbs par pouce carré.
Traction perpendiculaire (Tensile strength) : 18,500 lbs par pouce carré.

Parmi les Bois de Madagascar, le plus important est le Hintz ou Faux Gayac (*Afzelia bijuga*), d'une couleur jaune-brune, et presque imputrescible. Puis viennent le Vintanina (*Calophyllum parviflorum*), le Hazomena (*Khaya Madagascariensis*), le Varongy (*Mespilodaphne Faucherei*).

Nous ne mentionnons que pour mémoire le Bois de Singapore, qui a fait l'objet, dans le No. 54 de 1930 de la Revue Agricole, d'une étude détaillée dans laquelle il est expliqué que c'est surtout le Meranti (*Shorea leprosula*) qui nous est expédié.

B.—*Bois de Menuiserie.*

Parmi nos essences indigènes, la plus réputée est le Makak (*Imbricaria petiolaris*, A. D. C.), d'une riche couleur brune, avec des veinures sombres. Il se polit bien et prend une surface un peu huileuse qui se ternit avec le temps. Il a une bonne durée et mérite bien sa réputation.

L'Ebène noir (*Diospyros tessellaria*, Poir.) n'existe plus qu'en quantités limitées dans la Colonie, après avoir été l'objet d'un gros commerce pendant les occupations hollandaise et française. Sur les marchés européens, l'Ebène-Maurice est le plus apprécié de tous les bois d'Ebène, parce qu'il a des fibres sonores et sert à faire des touches de piano, des chevalets de violon, etc. N'étant plus que de dimensions restreintes, il ne sert guère plus en dehors de ce dernier usage que comme adjuvant pour achever, pour relever le ton des pièces de menuiserie, ou pour la marquetterie

Comme essences exotiques, acclimatées dans le pays, nous avons :

Le Bois Noir (*Albizzia Lebbek* Benth), que les Anglais appellent East Indian Walnut, et les Américains Koko : il donne des planches de bonne largeur d'une nuance brune, plus ou moins foncée, d'un joli aspect, se travaillant très bien et susceptible d'un beau poli.

Le Badamier (*Terminalia Catappa*, Linn.) d'une couleur brune tachetée très agréablement, donne de belles planches et des panneaux assez gracieux.

Le *Tecoma pentaphylla* s'est acquis depuis quelques années une certaine réputation pour ses panneaux, d'une couleur blanchâtre, et d'un assez joli aspect. Il est cependant établi qu'il n'a pas pour d'autres usages la force de résistance des bois précédemment décrits. Le Département des Forêts le vend à Rs. 2 par pied cube en grume au Dépôt de Port-Louis

Le *Terminalia arjuna*, dont on peut aujourd'hui se procurer de beaux madriers, devient aussi populaire à juste titre, donne un joli bois de menuiserie d'une grande résistance, — popularité que lui mérite aussi de nombreux usages comme bois d'œuvre.

Parmi les bois de menuiserie de provenance étrangère, que nous avons sur le marché, c'est évidemment le Teck (*Tectona grandis*) qui tient le premier rang, nous arrivant de Rangoon (Birmanie) en très grosses pièces équarries et se vendant environ Rs. 8 le pied cube.

Les Palissandres de Madagascar sont très appréciés et proviennent de diverses essences, telles que Hazovola ou Voambona (*Dalbergia Baroni*), Sovoka (*D. pterocarpifolia*) etc., etc.

P. KŒNIG.

Modified Volumetric Determination of Reducing Sugars by Fehling's Solution

The determination is performed on the ORDINARY clarified solution without DELEADING. To about 100cc of the solution to be examined, four drops of a 1% methylene blue solution are added, the coloured solution is put in the burette.

To 5cc or 10cc of Fehling's Solution, add 2cc or 4cc of a 10% solution of FERROCYANIDE OF POTASSIUM. Titrate by adding gradually the coloured solution without slackening the ebullition.

The end of the reaction is a *sudden* disappearance of the blue colour — it is very mat and the results are concordant.

The above method is a simplification of known methods and may it is hoped, be useful to sugar house chemists especially with determinations made at night.

E. HADDON

Mauritius and Empire Trade

There has been a considerable awakening of interest in recent years on the subject of inter-Empire Trade ; realisation of the importance of this question is certainly wider to day than it ever was, and efforts are being made in many quarters to strengthen the economic bonds of the Empire and to faster closer contact betweeen British countries.

I have felt for some time that it would be interesting and useful to prepare a brief statement of the position of Mauritius in the Empire in terms of inter-Imperial Trade and with this object in view, I set about to procure the statistics of trade from all the various territories of the Empire, the value of the total trade of each Dominion and Colony and the respective share of their trade with other parts of the Empire.

Although I was aware that the position this Colony occupies within the Empire in terms of trade had not in the past met with the recognition it deserves, I was not prepared for the very gratifying revelation brought to light by that compilation of Empire Trade Statistics.

Trade Loyalty Second to None

The statement published below comprises all the various Dominions and Colonies that go to form the Empire. The exact figures for a few Protectorates & Colonies have not been obtainable, for instance those of Tanganyika, British Malaya, North Borneo, etc ; it has been satisfactorily ascertained, however, that in the case of whatever British territories have been left out of the list, the percentages are very much lower than those of Mauritius.

The figures have been worked out on the latest available comparative values of the Import and Export Trade of each territory, and the percentages have been established on the value of the trade done with the Empire in relation to the total overseas Trade.

STATEMENT

OF

INTER-IMPERIAL TRADE PERCENTAGES.

Percentage value of trade of Great Britain, Dominions, Colonies and Protectorates, within the British Empire, in relation to their total foreign Trade :

	British Empire Countries.	Percentage of Empire Imports	Percentage of Empire Exports	Percentage TOTAL TRADE
1st.	Mauritius	75%	96%	**85**%
2	Kenya & Uganda ...	85	76	81
3	Fiji	87	73	80
4	British Guiana	78	73	76
5	New Zealand	68	84	76
6	St. Vincent (W.I) ..	70	80	75
7	Barbados (W.I) ...	71	77	74
8	Northern Rhodesia ...	76	64	70
9	Seychelles	73	62	68
10	Ceylon	63	70	67
11	Tongan Islands	Not Available	39	65 (approx.)
12	Grenada (W.I)	57	65	61
13	Nigeria	74	46	60
14	St. Lucia (W.I.) ...	59	57	58
15	Southern Rhodesia ..	72	35	54
16	Australian Commonwealth ...	55	48	52
17	Sierra Leone	61	41	51
18	Jamaica (W.I.)... ...	53	42	48
19	Trinidad (W.I.) ...	55	39	47
20	Gambia	80	11	46
21	India	54	35	45
22	Gold Coast	57	32	45
23	South African Union ...	59	28	44
24	GREAT BRITAIN ...	30	46	38
25	Zanzibar	21	48	35
26	Cyprus	44	23	34
27	Dominion of Canada ...	22	41	31
28	Bermuda (W.I.) ...	55	4	30
29	Bahamas (W.I.) ...	47	8	28
30	British Honduras ...	30	13	22
31	Malta	33	3	18

It will be seen from the above table that the value of the Imports of Mauritius from the Empire amounts to 75 o/o of the value of her Total Import Trade, and that the value of her Exports to the Empire amounts to 96 o/o of her total Export Trade ; it will also be seen that Mauritius ranks 6th in the percentage of total Imports, and 1st in Exports to the Empire.

In regard to the percentage of Total Empire Trade, Mauritius ranks first, i.e. that in proportion to the value of her total oversea trade she does more business with the rest of the Empire (including Great Britain) than any other Dominion or Colony ; in other words, that *the degree of her*

Trade Loyalty in terms of the Empire, is greater than that of any other British Territory (including Great Britain).

VOLUME OF TRADE RELATIVELY ENORMOUS

It may be argued that although our *percentage* of Empire Trade is the highest on record, it is but the percentage of a small volume ; it would be quite wrong to assume such a thing ! It does not appear to be generally known that relatively speaking our volume of trade is enormous, and that can be traced, there is no self-contained Colony of the size of Mauritius with so large a trade.

In point of size Mauritius is so small and its remoteness from the larger markets of the world so considerable, that a comparison of its trade with that of the other Colonies of the Empire has probably never been considered as worthy of the trouble ; yet it is certainly interesting to note that an isolated Colony situated outside the sphere of the world's important Trade Routes and whose greatest length is only 39 miles, has a volume of trade, in a normal year, larger than that of Uganda or Northern Rhodesia, British Guiana or Honduras, Gambia or Nyasaland.

It is not only in percentage figures, therefore, that Mauritius can claim pride of place in the Empire ; in actual tonnage and value the oversea trade of the Colony is out of all proportion to its size.

In regard to Inter-Imperial trade the importance of Mauritius as an Empire buyer and seller is even more pronounced.

The following statement shows the actual values in Sterling of the Empire Trade of Mauritius and that of several other Colonies of from 3 to 4 up to 100 times her size :

	Value in Sterling of Empire Trade
Mauritius	£ 7,010,420
Newfoundland	5,318,610
Trinidad	5,336,468
Jamaica	5,034,946
Northern Rhodesia	1,976,636
Nyasaland	1,570,310
British Guiana	4,397,185
Sierra Leone	2,027,469
Gambia	577,653
Malta	1,478,207
Cyprus	1,033,266
Zanzibar	1,703,807

The above reveals that the actual value of the Empire Trade of this Colony is higher than that of Newfoundland, a territory of over 42,000 square miles, situated in the shadow of Canada, and within 5 days' steam of Great Britain ; that our trade is considerably more than that of such large tracts of territory as Northern Rhodesia and Nyasaland, and of greater importance than that of the largest Colonies of the West Indies, Jamaica and Trinidad.

We may accordingly quite safely state that not only is the percentage of this Colony's Empire Trade the highest on record, but that the actual bulk value of our trade is considerably higher than that of many of the larger Colonies.

Mauritius has been known for many years as the largest Empire supplier of Sugar to the United Kingdom ; this fact, however, must not be allowed to overshadow the far more important distinction of being the *Record Holder in Empire Trade and Champion of the Empire in Commercial Loyalty.*

A. BRITTER,
Secretary
Chamber of Commerce.

L'Alpha Cellulose dans la Canne à Sucre

Pour répondre à la question qui nous a été posé plusieurs fois relativement à l'Alpha Cellulose extraite de la bagasse, nous allons analyser le travail qu'à présenté M. Joaquin de la Roza à la quatrième Conférence de l'Association des Technologistes Sucriers à Cuba.

Qu'est-ce que la cellulose ? C'est la substance la plus répandue dans la nature. Elle constitue la structure des végétaux, c.à.d. qu'elle est le principe constitutif des tissus des plantes.

La cellulose est un produit hydrocarboné qui n'a pas une composition fixe. C'est pourquoi sa formule est exprimée comme suit $(C^6 H^{10} O^5)_n$, cet n représentant le facteur faisant varier la proportion des trois corps simples, comme dans le cas des amidons, etc...

La cellulose la plus pure que l'on ait pu obtenir est le coton. Cette substance reste le "standard" de comparaison. Le coton purifié est extrêmement résistant à l'attaque chimique des principaux réactifs, il est appelé l'Alpha Cellulose.

La fibre de la canne contient une forte proportion de cellulose. Le taux peut varier suivant les méthodes de recherches : on pense qu'il peut atteindre 55 %, mais il est probable que ce chiffre est trop élevé et que cette cellulose peut contenir des impuretés telles que le pentosane etc. Il est plus sage de n'admettre que 40%.

Pour obtenir la cellulose de la fibre de canne, il faut se livrer à des traitements chimiques qui sont onéreux et ne peuvent guère être considérés comme des méthodes pratiques commerciales. Si l'extraction de la cellulose n'est pas faite rigoureusement, le produit obtenu contiendra probablement plusieurs autres celluloses que l'on classe sous la dénomination de Beta, Gamma, Oxy etc.

L'Alpha Cellulose commercial doit non seulement contenir un trés haut pourcentage de cellulose, mais encore il ne doit laisser à la combustion que des traces de cendres et être d'une blancheur immaculée. L'uniformité du produit comporte d'énormes difficultés de fabrication. Ces données permettent de se rendre compte que le succès d'une telle entreprise est subordonné à des facteurs qu'il est difficile de réunir complètement surtout dans un pays comme Maurice où il faudrait importer tous les produits chimiques nécessaires : soude, acide chlorhydrique etc...

M. Joaquin de la Roza est le premier qui ait tenté d'extraire de la canne l'Alpha Cellulose. Son premier brevet fut pris en 1925 et il éprouva des difficultés que seules purent surmonter la foi dans le succès et les nécessités de l'heure présente.

L'auteur énumère les difficultés qu'il a éprouvées au cours de la fabrication : formation de saponification des graisses lors de l'attaque de la fibre par les alkalis : le lavage après chaque attaque : la corrosion des appareils : l'absorption trop facile de l'humidité de l'atmosphère, et surtout la présence de la fine bagasse de l'usine. Un homme est obligé de surveiller la position du vent. Dès que ce dernier amène la folle bagasse, tous les appareils sont couverts afin d'éviter ce contact, qui est pernicieux. M. de la Roza écrit qu'il passe sous silence des centaines d'autres difficultés qu'il serait trop long de détailler.

L'Alpha Cellulose produit titrait 97 % de pureté. On en fit des bas qui furent présentés en Août 1930 au Président Machado.

En supposant l'aplanissement des difficultés précitées, il en existe une à Maurice qui rend impossible d'envisager cette fabrication : c'est l'approvisionnement en combustible étranger pour remplacer la bagasse. Il ne faut pas considérer la bagasse comme un produit inutile. Elle représente une valeur réelle puisqu'elle permet de retirer du jus le sucre qu'il contient.

La fabrication du papier est un problème qui a été déjà envisagé et étudié à Maurice. On a dû y renoncer. Des chiffres permettront de mieux comprendre l'économie que fait réaliser la bagasse.

En supposant qu'une usine manipule 50,000 T de cannes, contenant 25 % de bagasse, le combustible de la campagne sera de 12,500 T. de bagasse. En admettant que 4 Tonnes de bagasse remplacent une tonne de charbon, l'usine en question aura à importer 3,000 T. de charbon d'une valeur environ de Rs. 100.000. Le papier ne paierait pas cette dépense.

P. DE SORNAY.

MAURITIUS

Short notes on its History and the Evolution of its Sugar industry.

By F. NORTH COOMBES

Situation :— The island of Mauritius, situated in the South Indian Ocean (latitude 20° South and longitude 57° East of Greenwich), has a total length of about 39 miles and a total breadth of 29 ; its area is 720 sq. miles.

It is about 1500 miles East of Africa, 1650 miles N. East of Durban, 2200 miles from Colombo, 7500 miles from London via the Suez Canal, and 9000 miles via the Cape of Good Hope.

Discovery :— It is supposed to have been known to the Arabs long before its discovery by the Portuguese, in the early part of the 16th century.

The Portuguese never settled in the island, which they had named " Cerné ", taking no further interest than introducing a number of animals. The next comers were the *Dutch*, who, under admiral Warwyk, landed in September 1598 and took possession ; they changed the name " Cerné " into that of *Mauritius*, after the Statholder Maurice of Nassau.

During many years the island was only a health resort for the Dutch from Java, but these never settled definitely.

As the forests abounded in ebony, many were the foreigners who visited Mauritius for cargoes of that wood which was then very valuable, but when the Dutch East India Company found out that forests were being destroyed, they determined to occupy the island again and secure the monopoly of the ebony trade.

The Dutch East India Company :— From 1638—1658, Mauritius was managed by this company, and it was about the year 1650 that sugar canes began to be cultivated in the island, as the price of ebony had gone down. Sugar canes were imported from Java but the story goes that the plantations were all destroyed by rats and cultivation had to be abandoned.

After the occupation of Cape Colony by the Dutch in 1652, their interest in Mauritius was considerably reduced : finally, they determined to leave, which they did in 1658.

Six years later however, in 1664, the Dutch E. India Cy. reoccupied the island for the resumption of ebony trade. Except for small plantations of indigo and spices, agricultural development was nil. In 1695 a terrific hurricane devastated the island, and the depredations of pirates in the following years caused such trouble that the few inhabitants were completely disheartened and decided to leave. In 1707 the Company sent ships for the removal of the whole population, and by 1710 the last Dutch settlers had left.

Mauritius remained uninhabited from 1710 to 1715 and was only the headquarters of pirates who kept harrassing the neighbouring island of " Réunion ", which was then under the control of the French East India Company.

Ile de France and French East-India Company :— In 1715 Dufresne, a captain in another French Company, was ordered by the King of France to take possession of the island, and its name "Mauritius" was changed into that of *Ile de France*. After the death of Louis XIV, the Ile de France was handed over to the French East India Company. The first Governor for that company was Mr de Nyon who settled at Grand-Port in 1722. The number of inhabitants was but 160 then, and it was at that time that French families from Bourbon (Réunion) settled in this Colony.

Among the Governors for the French E. India Company, the best was undoubtedly *Mahé de Labourdonnais*, who held office from 1735 to 1747. Due to his energy and capacities the colony progressed considerably. The harbour and city of Port-Louis were created, forts and bridges constructed, roads opened, and industry and agriculture established. It was under his government, towards 1741, that *sugar canes* were introduced once more and began to be cultivated successfully.

Mr. Barthelemy David, who succeeded Labourdonnais in 1747, did much to promote agriculture ; indigo, cotton, maize, rice and sugar cane were planted on a larger scale ; in 1750 the first sugar factory was in operation at "Ville Bague", in the district of Pamplemousses. Canes were cultivated by slaves from Africa and Madagascar, and sugar at this epoch, due to its most primitive manufacture, was but a dark mixture of crystals and molasses and unfit for consumption. In the next years things dragged [illegible] : the French E. I. Cy having been nearly ruined by the English in India, commerce with the Ile de France was paralysed, and the Company decided to sell Bourbon and Ile de France to the French Government.

So, in 1767 the island came under the direct control of the French.

French occupation for the King (1767–1810) :— One of the most noted of the Governors for the King was *Desroches*, who improved the capital and harbour of Port-Louis and furthered agriculture. *Poivre*, his intendent, introduced many useful plants and created the gardens at Pamplemousses as an experimental station ; this is now the Royal Botanical Garden which for some time ranked among the best in the world.— In 1776 there were 3 sugar factories, indigo being then the chief industry. By 1789 the sugar production amounted to 300 tons.

These were troubled times ; France was at war and had to face so many ennemies that she was compelled to increase her navy to protect her commerce, but as she did not possess a sufficient number of armed ships for that purpose, she gave letters of "marque" to "corsairs" (privateers).

Many vessels were built in the colony and armed as best as possible ; these frequently raided English merchantmen on their way to India.

Attempt at Slave Emancipation :— In 1795 two envoys of the French Directory arrived with the mission of proclaiming the immediate emancipation of slaves, without compensation to their owners. They met with such strong opposition from the planters who relied solely on slave labour for their plantations, that their mission was a failure and they had to return to France. It was not until 1835, under the English rule, that the slaves were set free.

English East-India Company :— Meanwhile, the "*corsairs*" from the

island were harassing so much the English in the Indian Ocean that the English East-India Company decided to take possession of the "Ile de France". An attack was planned in 1800 and was to be entrusted to Lieut. Colonel Arthur Wellesley (afterwards Duke of Wellington), but conditions being unfavourable it had to be postponed. The peace of Amiens (1802) brought hostilities to an end, but some time later war broke out afresh. Depredations of privateers continued to cause anxiety to the English, and the Viceroy of India, Lord Minto, in order to put a stop to them, insisted upon the capture of the Ile de France. Detachments of troops were sent to Rodrigues ever since 1809, and in November 1810 the expedition was ready for the attack.

Naval Battle of Grand-Port :— On the 20th August 1810 and following days, took place the memorable naval battle of Grand-Port, when the English fleet, under Willoughby, was defeated by the French fleet under Duperré and Bouvet. This was the first attempt made by the English at the conquest of the island.

The Conquest :— The main expeditionary force that had been waiting at Rodrigues finally set out under the command of General Abercrombie. It consisted of 16,000 men and came in sight of the Ile de France on the 26th November 1810, landed on the 30th and marched towards Port-Louis, from the North. There were only 2000 effective men to oppose to them and on the 1st of December a battle raged near the town, the island's troops being commanded by the French General Vandermaësen. The English met with strong resistance, but the next day a squadron arrived from the Cape with troops, and as these marched on Port-Louis from another direction, the Governor of the island, General Decaen, found that further opposition was impossible and asked for an armistice to discuss the terms of capitulation.— On the 3rd December 1810 all the terms were agreed upon and the capitulation signed. The troops were to retire with arms and baggage, were not to be considered as prisoners of war and were to be sent back to France at the expense of the British Government. The inhabitants were to preserve their properties, laws, religion and customs. This most honourable capitulation brought to an end the French occupation. The island was however definitely ceded to the British Crown by the Treaty of Paris in 1814.

The British Occupation (1810—*present date*) :— The first English Governor was Mr Farquhar. His appointment being protested against by some generals who had had a share in the conquest, he was replaced for a short time by General Warde, during whose tenure of office the island changed its name of "Ile de France" into its former one of "Mauritius". Mr Farquhar was reappointed Governor later, and while in command an act was passed in Parliament in 1813 for the repression of the slave trade. Slavery could not be abolished without indemnity, but Mr Farquhar succeeded in stopping the slave trade between Madagascar and this Island. In 1814 he created an "Agricultural Society", but the latter was shortlived ; other societies with the same object were formed subsequently. A terrible conflagration destroyed the fourth part of Port Louis in 1816, and two years later the island was visited by a violent hurricane. A cholera epidemic, in 1819, decimated the population and spread also to Madagascar ; this event brought to a close the introduction of slaves from that island.

Cane cultivation was much increased during Sir Robert Farquhar's governorship and in 1816 sugar production had risen to about 4,500 tons, manufactured in 68 factories ; these, as can be judged, were very small indeed. Of course, in these early days mills were unknown ; the juice was expressed from the cane by means of a "*flangourinier*", that is a strong and thick wooden table on which was adjusted a heavy wooden roller made to press and roll over the canes laid on the table ; the juice, collected in a gutter round that table, was boiled in open pans, concentrated into a brown mass, drained of its syrup in perforated troughs, and dried in the sun. Such was the kind of sugar then turned out. At that time the island exported cotton, coffee, cloves and indigo ; the grain crop amounted to about 11 million lbs.

In 1825 a considerable impetus was given to the sugar industry by the abolition of the duty of 10 sh. per cwt to which Mauritius sugar was liable on entering the United Kingdom. Sugar production then progressed very favourably, rising from 9000 tons in 1823 to 20,500 tons in 1827. The primitive "flangourinier" had by that time been replaced by iron mills with two or three rollers, and the mills themselves, which were quite small at the start and were driven by water or animal power, were superseded by larger ones and the motive power replaced by steam.

First Royal Commission :— In 1826 a Royal Commission, composed of Mr. Bigge, Major Colebrooke and Mr Blair, was appointed to inquire into the administration of the island and the treatment of slaves. The Commission recommended their immediate emancipation, but as this measure would have ruined the planters, Mr Adrien d'Épinay was sent as a delegate to London to protest against the accusation of ill-treatment brought against them. Abolition of slavery was decreed and the Anti-slavery Society induced the Cabinet to give more legal powers to the Protector of slaves in Mauritius.

Jeremie :— Mr John Jeremie, chief justice at St. Lucia, was appointed "Procureur General" and landed on the 5th of June 1832. His arrival met with violent opposition. Very troubled times followed ; planters, thinking that slaves would be emancipated without indemnity, considered their plantations ruined, and held Jeremie as their worst enemy. They insisted on his leaving the colony and as a sign of protest shops and offices in Port-Louis remained closed during forty days, and commerce was paralysed. To arrange matters, Jeremie was delegated to England by the local Government to report on the state of affairs in Mauritius. He came back in 1833, but his stay was not prolonged.

Slave Emancipation :— In the following year Parliament accepted to pay an indemnity to planters for the emancipation of their slaves ; this was computed at a total of £ 4,000,000, but only about half of that sum was paid and emancipation was declared on the 1st February 1835.

Indian Immigration :— The year before had witnessed the introduction of the first Indian immigrants. As the slaves, now free, refused to do any field work, the sugar industry would have been ruined by the abolition of slavery had not the emancipated slaves been made to work for another period of 5 years, during which immigrants arrived from India. In 1839 Indian immigration was suspended through the protest of the "Abolitionists", but was resumed in 1842 by Lord Stanley, on favourable reports received as to the treatment of immigrants in the

colony. Slaves were finally liberated in 1839 and from that period planters have relied on Indian labour only, for the cultivation of their estates.

The population of Mauritius at that time numbered about 100,000, of which 8,500 were Indians. There were 186 sugar factories producing a total of 36,000 tons of sugar yearly : the sugar extracted on weight of canes, which towards 1816 varied between 4 and 5 %, had gone up to about 6½ % in 1839 due to better crushing.

The Chamber of Commerce had been founded in 1827, the Mauritius Bank in 1831 and the Commercial Bank in 1838. In 1846 was held the first sugar exhibition. About 30,000 Indian Immigrants landed in Mauritius in 1843 to satisfy labour requirements, and by 1846 their number was 56,000, to reach 78,000 five years later. Guano for cane fertilisation was first introduced from Peru in 1843.

From 1841–1850 the colony produced about 56,000 tons of sugar yearly ; the average extraction of sugar had reached 7.0 % cane.

A cane pest, the *borer*, began to attack the cane plantation in 1850 and caused great damage ; it had been introduced from Ceylon with canetops, and even at the present day is responsible for a small reduction of the crops.

In 1853 the *Chamber of Agriculture* met for the first time and ever since has been taking a very active part in the progress of the sugar industry. In 1856, 1859, 1860 and 1861 cholera epidemics caused very many deaths in the island ; that scourge fortunately disappeared in 1862. It was in that year that Mauritius began to export its sugar to India.

Railways :— During the governorship of Sir William Stevenson, in 1859, the Railways were begun. The total length of the Railway line is at present 121 miles.

Malaria :— In December 1866, during the government of Sir Henry Barkly, occurred the first epidemic of malaria. Very many were its victims ; in Port Louis, out of a population of 60,000, about 17,000 persons died in the space of six months ; for the whole island about one-ninth of the population perished. This epidemic was the cause of the exodus from Port Louis, the capital ; those who could afford went to live up country. At the present day, in spite of sanitary precautions, fever is still prevalent, especially on the coast and lowlying lands and causes many deaths every year.

Prince Alfred :— In 1870 His Royal Highness, Prince Alfred, Duke of Edinburgh, visited the colony and was the guest of Sir Henry Barkly, the Governor. He laid the foundation stone of the Royal Alfred Observatory.

Progress of Sugar Industry :— During the decade 1851-1860 the sugar output of the Colony was 112,000 tons yearly, produced in 227 factories, and during the period 1861-1870, production was about 130,000 tons. Extraction of sugar % cane had gone up to 8 %, most of the factories using double crushing. During that period, " Vacuum Pans " were installed for boiling ' in vacuo ', and also ' turbines ' (centrifugals) for the curing of the sugars.

In 1871 the population had increased to 316,000 (of which about 216,000 Indians), and there were 129,000 acres under cane cultivation. Had it not been for Indian Immigration, Mauritius could not have de-

veloped its sugar industry as it has done. The " Abolitionists " however considered indentured labour as a ' camouflaged ' slavery and wanted to suppress it. There were complaints of harsh treatment in some cases, but matters reached a crisis when the whole body of planters were accused by De Plevitz, a Prussian residing in Mauritius, of ill-treating the immigrants. The Chamber of Agriculture, which was gaining in importance yearly and was composed of the leading business men and sugar planters, took umbrage and protested against such general accusations. A petition signed by hundreds of notabilities was addressed to Her Majesty, Queen Victoria, asking for the appointment of a Royal Commission to inquire into the matter.

Second Royal Commission :— In 1872 the Commissioners, Messrs Frere and Williamson, arrived and began their inquiry. The planters were represented before the Commission by their counsels, Sir Virgile Naz, William Newton and George Guibert. The Commissioners' report was published in 1873, and to afford better protection to the labourers a *Labour Law* was framed and came into force in 1878.

Manufacture of sugar was progressing favourably and at that time *Double Effect* evaporators were erected in the sugar-houses for the more economical concentration of the juice. Centralisation had begun, the smaller concerns being gradually absorbed by the larger and better equipped units, and the number of factories had been thus reduced to 171.

During the government of Sir George Bowen a petition was again sent by the inhabitants to Her Majesty Queen Victoria to protest against the taking of their lands, without indemnity, for the enlargement of River Reserves. Government had decided to protect water courses by reafforestation of the reserves, because forests had been considerably destroyed for cane cultivation. The planters availed themselves of this petition to give vent to all their grievances and asked for admission of elected members into the Council so that the people might have a voice in the Government of the Colony.

Pope Hennessy :— Things however remained in the " statu quo " until the governorship of Sir John Pope Hennessy who sided with the people on the proposed *Reform of the Constitution* and the 'Mauritians' request was granted, but with some modifications.

Our present constitution was established in October 1885 and the first elections took place in January 1886. That reform had some strong opponents ; Pope Hennessy was disliked by that adverse party and his government was criticized. Matters went from bad to worse and an inquiry was asked. Sir Hercules Robinson, appointed for that purpose, suspended Pope Hennessy in December 1886. The colony sent the Hon. (later Sir) William Newton, an eminent barrister, with a petition of the inhabitants to Her Majesty, asking the reinstation of the Governor. That request was complied with and Pope Hennessy was reinstated.

Centralization of sugar-houses made a step further during these years and in the period 1880-1890 the number of factories at work had been reduced to 104. The first sugar chemists to arrive in Mauritius for the control of factory work were *Biard* and *Ehrmann*. Biard worked for Sir Henry Leclézio at his " Alma " factory, and Ehrmann was attached to the Oriental Bank Estates.

In 1889 the Chamber of Agriculture, led by Sir Henry Leclézio, requested Government to try " Diffusion " process. Mauritius was following closely the progress of the beet sugar industry in Europe, and in order to increase sugar extraction desired to make a trial of the diffusion process as applied to the beets. The trial was made at the " Britannia " factory in 1890 but proved unsuccessful and uneconomical due chiefly to fuel requirements.

Cyclone of 1892 :— On the 29th April 1892 Mauritius was visited by the most violent cyclone that ever raged. Eleven hundred people lost their lives; the greater part of Port-Louis was a heap of ruins, 2,000 persons were wounded and 50,000 homeless. The sugar factories suffered considerably, and the standing cane crop was reduced by 50 per cent.

Hurricane Loan :— In response to the appeal made by Mr. (later Sir) Hubert Jerningham, who was then replacing the Governor Sir Charles C. Lees, the Home Government granted a loan to the planters, to be refunded in 20 years. Later Sir H. Jerningham was confirmed as Governor. His administration witnessed in July 1893 the great fire at Port-Louis which destroyed one of the most commercial parts of the capital.

Plague and Surra :— In January 1899, when Sir Charles Bruce was Governor, bubonic plague made its appearance in Mauritius and raged for nearly seventeen years. In 1902 the cattle disease " Surra " broke out and most of the draught animals perished. This occurred as the crop was about to begin and caused a serious loss to the colony. In order to carry on the crop, carts, that afforded the only means of transport, had to be drawn by men to convey canes to the factories and eventually these had to keep crushing till late in the season, thereby incurring a heavy loss.

Tramway Loan :— In this crisis the planters were granted a loan by the Home Government to instal mechanical traction on their estates and in 1903 a considerable quantity of tramway material—rails, locomotives and wagons—was imported. The introduction of tramways was a boon to the planters and, useless to say, the tracks and material have been considerably added to since 1903 and at the present day most of the estates transport canes to the mills by tramway only. The installation of tramways favoured still further the centralisation of factories which then numbered about 80.

In August 1901 the Colony was honoured by the visit of Their Majesties King George V and Queen Mary, then Duke and Duchess of Cornwall and York.

From 1900 to 1905 factories were much improved ; triple crushing had been adopted since a few years and this period witnessed the introduction of maceration, crystallizers, suspended centrifugals etc ; it can be said that the real progress of the Mauritian Sugar Industry dates from that time.

A Loan Refused :— Due to low prices ruling for sugar, the colony was in a depressed condition towards 1904 and its financial position embarrassing. So keen however were planters on keeping abreast of the

progress of the sugar industry that a petition was made through the Chamber of Agriculture for a loan of £ 400,000 with a view towards the modern equipment of factories ; a Department of Agriculture was asked for, as well as Irrigation Schemes for the dry districts. The loan was refused in spite of the fact that all previous ones, such as the " Hurricane Loan " and the " Tramway Loan ", had been regularly paid and had even proved advantageous to the Government.

Experts :— An inquiry was made into the working of the Railways, Sir David Hunter, of Natal, being sent out for that purpose. At about the same time we received the visit of Sir Ronald Ross, the Malaria expert, who made a most valuable report. Unfortunately, due to financial difficulties a good many of his suggestions could not be carried out.

Sir William Taylor was sent out in 1912 to inquire into the working of our Customs Department, and Mr. Gleadow, a forest expert, was chosen to report on reafforestation.

Amelioration of factories continued ; crushers, barometric condensers, Musgrave ventilators, fuel economizers, double curing etc. were installed in the sugar houses during those years.

Third Royal Commission :— The proposed loan for factory improvements was again submitted to the Home Government who replied that they would consider the proposal provided the colony applied for a Royal Commission of Inquiry. This was accepted ; the Royal Commissioners, Sir Frank Swettenham, Sir Edward O'Maley and Mr. Woodcock K. C., arrived on the 18th June 1909. Their inquiry lasted six weeks and many were the witnesses heard, publicly and privately. A year after, their report was made public. The Department of Agriculture was granted, and later, agricultural banks were inaugurated and the Irrigation scheme adopted.

Sir R. Chancellor :— In 1911 Major John Robert Chancellor (now Sir J.R.Chancellor, lately High Commissioner for Palestine) was appointed Governor. He took the greatest interest in everything that could promote the welfare of the Colony and was very popular with the community. During his administration several important works were carried on, foremost among which was the Irrigation of the Black River district on the plan submitted by Mr. G. M. Hariott, Irrigation expert.

In 1911 a new cane pest, the Phytallus Smithi (named after M. George Smith, Colonial Secretary, replacing the Governor), were discovered at " Mon Rocher ", at Pamplemousses. These larvae attack the roots of canes and cause a serious loss to planters ; that scourge has not yet been eradicated but the Dept. of Agriculture has considerably helped in getting rid of it. Destruction of the beetles is continuing at great expense in several parts of the island, and a parasite of the Phytallus, the " typhia parallella," was introduced since several years to help in the annihilation of the pest.

Department of Agriculture :— That Department was inaugurated in 1913 and replaced the " Station Agronomique " which since 1893 had been under the able direction of Philippe Bonâme, a French chemist of

great repute. Mr. R. Stockdale (at present one of the agricultural advisers to the Secretary of State for the Colonies) was the first Director of our Department of Agriculture and did excellent work.

In that same year Indian Immigration was definitely abolished. In 1914, the first year of the Great War, Government purchased 100,000 tons of Mauritius sugar at 17/6 per cwt f.o.b. The planters offered two million lbs sugar to the army and navy and in 1916 gave Rs. 1,000,000 to the Imperial Government for the purchase of aeroplanes.

Sir Hesketh Bell succeeded Sir John Robert Chancellor as Governor in 1916 and remained in office until the early part of 1925.

The Influenza epidemic in 1919 caused heavy mortality throughout the island.

Crop values :— In 1915, 1916 and 1917 the total money value of the sugar crop was about 51 million rupees yearly ; in 1918 it reached 61 millions and in 1919, 104 million rupees.— (Rs. 15 = £ 1).

In 1920 our sugar crop was sold to the Royal Commission at 90 shillings per cwt f.o.b., and the total crop value amounted to about 240 *million rupees* (about £ 16,000,000). Cost of production had also very greatly increased during these years and labour was scarce and expensive. Cost of living kept very high, and up to 1930 had not been reduced to pre-war conditions.

At the Governor's suggestion, a sum of 14 million rupees was levied on the sugar producers after the 1920 crop, to create a " Development Fund " for carrying out improvements in sanitation, in the harbour of Port-Louis etc. Dr. A. Balfour was the expert appointed to report on sanitary conditions, and Mr Mitchell on the harbour improvements and deep-water quays. In 1923 Mr Austen began the preliminary work on the harbour ; deep water quays have been partly created and a Granary has been constructed. At the same time the Rockfeller Institute began an " anti-ankylostomiasis " (hookworm) campaign which is being continued by Government with good result.

Factories :— In 1921 there were only 54 sugar factories in the colony, and the population was 376,485, of which 265,524 Indians.

Factories were much improved in these last years, new machinery was installed and tramway lines extended. Every effort was made to produce a first class white sugar to satisfy the English market.

College of Agriculture :— Under the very able and energetic management of Dr H. Tempany, Director of Agriculture, a College of Agriculture was created and the foundation stone laid by Sir Hesketh Bell in July 1923. The College was opened in 1925 by Sir Herbert J. Read who had succeeded Sir H. Bell as Governor in February 1925.

In that year there was again an economical crisis due to the low price of sugar. A cyclone on the 19th April 1926 caused serious damage to the standing crop, and the low sugar extraction recorded,— (an unavoidable effect of a late cyclone), made matters still worse. Government at the request of planters found it necessary to grant them a loan of Rs. 5,000,000 (£ 357,000), repayable in 8 years, to assist the industry.

Under the auspices of the Dept. of Agriculture a very successful Agricultural and Industrial Exhibition was held in Port-Louis; it was the best we ever had. An aloe fibre bag was there exhibited for the first time, showing the possibility of making these bags in Mauritius. The necessary machinery has now been ordered, and a factory has been erected for the making of these aloe-fibre bags for our sugar ; this will give more extension and better returns to our fibre industry. The year 1926 also witnessed the erection of a Modern Distillery on " Médine Estate ", one of the biggest and most progressive factories in the island.

Sugar Industry Conference :— A Sugar Industry Conference convened by Dr. Tempany, Director of Agriculture, and under the chairmanship of Sir Henry Leclézio, the Great Old Man of Mauritius and the leader of the Agricultural community, was opened by Sir Herbert Read in April 1927. Everything pertaining to the sugar industry was discussed, with a view towards placing it on a sounder basis and nothing was neglected to assure its progress.

Royal visit :— On the 1st of June of the same year, Mauritius was honoured by the visit of Their Royal Highnesses the Duke and Duchess of York, whose stay in the island was unfortunately of too short duration. Mauritians of every rank and class enthusiastically welcomed their Royal Highnesses and were happy of this occasion of expressing their loyalty to the Crown.

New Tariffs : — At the beginning of 1928 planters were advised that new customs duties on sugar were to come in force in April. A meeting of the Chamber of Agriculture was held to protest against these new tariffs which favoured foreign Raw Sugar to the detriment of the white sugar from this colony. An insignificant increase in the " preference " was not sufficient however to compensate our loss, and several factories had to turn out Raw Sugar during the 1928 crop. The year after, nearly all of them had to abandon the manufacture of " whites " for which they had been properly and expensively equipped. The creation of a local Refinery was studied to meet the emergency but the idea was abandoned.

After eleven years of hard and useful work during which he not only devoted himself to the sugar industry but also established tobacco cultivation, Dr Tempany, Director of Agriculture, left the island in July 1928, on promotion, and was succeeded by Mr D'Emmerez de Charmoy, I.S.O., a Mauritian entomologist of repute.

Loan of Rs. 6,000,000 :— Sugar prices keeping low and barely covering costs of production, the Chamber of Agriculture asked for a loan of

Rs. 6,000,000 (£ 430,000) in December 1928 ; this was granted and allowed planters to carry on until better days.

In March 1929 died at his residence, " Eureka ", in the district of Moka, the Honourable Sir Henry Leclézio K.C.M.G., who had been the inspiring genius of the planters since a good many years ; he was held in high esteem by the community and had done much to promote the interests of our sugar industry. His demise was a loss all the more to be deplored as it occurred at a very critical moment, when his country, which he loved above all, was in sore need of his sound counsels and expert leadership.

Sir Francis Watts' inquiry :— In May 1929, unable to cope with their financial difficulties, the planters applied through the Chamber of Agriculture for a loan of £ 1,500,000 to be refunded by yearly instalments in 30 years. The question was duly considered by Government and Sir Francis Watts, K.C.M.G., F.C.S., was sent to Mauritius to inquire into the conditions of the sugar industry. He arrived in October and after a long and careful investigation came to the conclusion that the industry had to be assisted *immediately*. His comprehensive and most clever report, which clearly exposed the situation and left no stone unturned, was submitted to the Secretary of State, but the Home Government could not offer any adequate help. Sir Francis Watts left on the 9th April 1930, a few months after the departure of Sir Herbert Read, the Governor.

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There are at present 42 sugar factories in the island, turning out an average total of about 235,000 tons of sugar yearly. The average sugar extraction on weight of cane is now about 10.80 % . The area under cane is approximately 137,000 acres.

Mauritius relies on its sugar industry *alone* for its very existence ; cultivation of sugar cane is the only reliable one, due to its resistance to cyclones, and were it to be abandoned to-morrow this colony would be utterly ruined. It should not be forgotten that the value of sugar leaving the island represents 97 % of its total export trade and that Mauritius is the largest exporter of sugar in the British Empire. Its large population of about 400,000 at present, i.e. 555 inhabitants per square mile, is wholly dependent on sugar, and unless prices go up or tariffs are altered there is but little hope for this colony of maintaining its position as a sugar producer.

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Les Engrais

La Revue Agricole a averti ses lecteurs, bien des fois, des graves inconvénients à utiliser le sulfate d'Ammoniaque. Il nous paraît opportun de rappeler les fâcheuses conséquences de l'emploi de cet engrais en publiant la note parue dans *Science et Monde* le nouvel hebdomadaire scientifique qu'édite Flammarion et qui est fort intéressant. Ce périodique fait écho à l'impressionnant appel de M. de Castillon pour le salut de la terre de France.

Les Engrais Meurtriers

On sait que les engrais *à base d'acide sulfurique*, plus exactement à base de *sulfates*, dits pour cette raison " engrais acides ", font perdre chaque année un million de tonnes de calcaire utile aux terres françaises. On a même évalué la perte de fertilité, provenant de ce chef, à 100,000 wagons de calcaire ! C'est ce qu'on appelle la *décalcification*.

Un de nos confrères, les plus qualifiés pour examiner ce problème, vient d'affirmer que c'est là une menace pour l'agriculture et la santé publique provenant de l'emploi de ces engrais acides qui ruinent la fertilité de notre sol. C'est une question d'ordre industriel et économique. En effet, les fabricants d'acides importent annuellement un million et demi de tonnes de pyrites espagnoles, ce qui fournit un million et demi de tonnes d'acide sulfurique ordinaire. C'est cette débauche d'acide qu'il faut utiliser en France. Or, la grande industrie chimique française prépare de ce fait, en abondance, le sulfate d'ammoniaque pour l'agriculture. C'est cet engrais, employé en excès, qui compromet singulièrement la fertilité de notre sol au point de vue cultural.

C'est toute la politique des engrais qui est ainsi posée : engrais azotés, engrais sulfatés, engrais phosphatés.

Les terres de Maurice sont relativement pauvres en chaux. Aucun amendement calcaire régulier n'est apporté aux cultures, c'est dire qu'un emploi continu du sulfate d'ammoniaque ne fait qu'enlever la chaux de nos sols, élément si nécessaire tant au point de vue chimique qu'au point de vue biologique. Nous espérons que ce nouvel avertissement sera pris en considéraration par les planteurs.—N. de la R.

Chambre d'Agriculture

Cette Chambre s'est réunie le mercredi 5 août dernier, sous la présidence de l'Hon. M. Pierre Montocchio. Le nombre des planteurs présents fut tel que la salle ne put les contenir tous et que beaucoup assistèrent à la réunion sur le trottoir et dans le couloir. Parmi les assistants : les Hons. M. Jules Leclézio, P. Adam et H. G. Robinson et MM. A. de Bissy, Octave Lagesse, G. Pilot, Louis Leclézio, E. Rochery de Marcenay, Robert Lagesse, F. Montocchio, L. Daruty de Grandpré, Alfred de Senneville, M. Rivalland, G. de Laroche du Ronzet, Jules Bouchet, Léon Desvaux de Marigny, Martial Espitalier-Noël, O. Rouillard, G. Castel, Louis Espitalier-Noël, Georges Montocchio, Henri G. Ducray, S. Mayer, R. Leckie, C. Hitchcock, Fernand Desvaux de Marigny, G. Le Breton, Louis Larcher, Louis Couacaud, Ed. Piat, E. Langlois, Ange Cayeux, E. Harel, J. Le Blanc, Abel de Robillard, J. H. G. Ducray, Adrien Dalais, René Dumée, H. Lincoln, E. Rouillard, Ph. Guimbeau, A. Bouic, R. Noël, G. Souchon, M. Boullé, E. Mamet, P. Langlois, J. Chasteau de Balyon, Adrien de Spéville, E. R. Lagane, Louis Labat, Alphonse Lagesse, Marc de Chazal, Gabriel Regnard, I. Currumtally, F. Lionnet, L. Bour, G. Rey, T. Mallac, A. Gujadhur, G. Symons, M. Bonieux, Th. Regnard, Lionel Dayot, Max Poupinel de Valencé, Raoul Dufourq, James Le Maire, Robert Le Breton, Marcel Souchon, Lionel Lincoln, Jules Rousset, W. Mayer, Maurice Lagesse, René Raffray, Henri Tyack, André Leclézio, A. de Gersigny, A. Carles, A. D. Jewell, George Mayer, Fernand Leclézio, E. Mottet, A. d'Emmerez de Charmoy, Edgard Piat, M. Baschet, Camille Hardy, W. Dawson, Louis Bouic, Pierre Leclézio, Raoul Lolliot, Dr A. Lesur, Volcy Goupille, Jean Hein, E. Avice, F. Brickdale, Louis Eynaud, Jules Hein, René Maingard, E. Rogers, R. Bérenger, Pierre Noël, etc, etc, etc.

En ouvrant la séance, M. Pierre Montocchio remercie les planteurs et intéressés dans la question sucrière d'être venus si nombreux à cette réunion : cela fait voir l'importance qu'ils attachent à la question. Dès la semaine dernière, le Bureau de la Chambre fut avisé par les autorités qu'un " court " projet de loi serait soumis à la législature à sa prochaine séance pour un " court amendement ". Une fois le projet de loi reçu, la Chambre put se rendre compte que la loi serait effectivement courte, mais que les mots en étaient pleins de sens. Il s'agissait simplement de rayer les mots *manufacturers of sugar* de la première Ordonnance. En un mot, il s'agissait rien d'autre que de priver les usiniers de toute la part d'assistance leur revenant du fait de la réduction des cannes de planteurs qu'ils auraient à manipuler. M. Montocchio ne pense pas qu'il soit difficile d'obtenir du Gouvernement qu'il renonce à son projet, car celui-ci ne saurait exiger que cet amendement fût adopté.

Dès samedi le Bureau de la Chambre s'est mis en correspondance avec son délégué à Londres, Sir Louis Souchon, afin que celui-ci pût approcher les autorités métropolitaines. M. Montocchio ne peut croire que la demande de la Chambre soit rejetée, car cela priverait les planteurs du tiers environ de ce qu'ils pourraient obtenir comme assistance et la moitié des cannes cultivées dans la colonie ne pourrait bénéficier d'aucune assistance.

Il est visible, pense M. Montocchio, que cet amendement a été sug-

géré de Londres et que le Secrétaire d'Etat ne réalise pas l'importance de l'amendement qu'il préconise ; une fois en présence du Mémoire que la Chambre va lui soumettre, Lord Passfield changera sûrement de décision.

M. Montocchio termine en disant que le secrétaire de la Chambre va donner lecture de la traduction française du projet de Résolution.

Le Bureau de la Chambre invite tous ceux présents à faire telles remarques et suggestions qu'ils jugeraient nécessaires. Les membres du Bureau ont étudié avec soin le document, mais cela n'empêche qu'ils sont disposés à examiner toutes suggestions qui leur seront faites.

Le Secrétaire donne lecture d'une longue Résolution préparée par le Bureau.

RESOLUTION

1.—The Bill to amend the Mauritius Hurricane Loan (appropriation) Ordinance, 1931, which was read a first time in the Council of Government yesterday, purports to amend the said Ordinance by the deletion of the words "and by manufacturers of sugar" from Article 3 thereof.

The effect of such amendment would be to debar mill owners from obtaining any relief out of the Hurricane Loan in respect of the financial consequences, to them, of the shortage in sugar output from planters' canes.

This denial of loan relief would, we submit, operate unfairly to the factory owners and entail desastrous repercussions, affecting themselves and the Colony at large. It would, further, gravely impair the fundamental usefulness of the Loan and run contrary to the intentions of His Majesty's Government in offering to assist this Colony in the form of the said loan.

2. — The "Committee" issued by Government on the 4th April last, after stating that H. M. Government would be prepared to guarantee the interest and sinking fund of a Loan to be raised by the Government of Mauritius for the purpose, inter alia, of "making advances to private persons and Companies to cover loss due to the hurricane by way of damage to property, stock, etc... and loss of growing crops", further stipulated, as one of the conditions of the Loan, that "the amount to be advanced in each case" would be "assessed with reference to the hurricane damage suffered and to the conditions of the particular case."

The "Memorandum explaining the Financial Resolution" presented to Parliament by Command of His Majesty, May 1931, defines the objects of the loan as including, inter alia, "the making of loans to planters and others in respect of hurricane damage to property, stock, crops, etc..."

3. — Nothing in the language reproduced would appear, per se, to exclude "manufacturers of sugar" from the benefit of loan relief in respect of the losses sustained by them on account of short output of sugar from planters' canes.

The "loss of growing crops", to quote the expression used by Dr Shiels, under Secretary of State for the Colonies, when addressing the House of Commons in reference to the Loan on the 14th May and 5th June last (we quote from the Official Report), is incumbent partly on the grower and partly on the manufacturer, since the latter holds an unques-

tionable contingent ownership in the quantum of sugar fabricated, which, by agreement, is to be retained by him in payment for costs of manipulation.

It may be added that, while the grower is affected by diminution of the cane tonnage to be harvested (in consequence of the cyclone), the manufacturer is affected not only—pro rata his share of the sugar to be made—by the shortened output in regard to undiminished overhead expenses, but also (and in this latter respect he is sole sufferer) by the impaired recovery from the actual weight of canes crushed, owing to the poor quality and or quantity of the cane juice — a further consequence of the cyclone.

The importance of the last-mentioned factor cannot be over-rated when it is borne in mind that in the vast majority of cases contracts between farmers and mill owners provide for a *fixed* return to the farmer of so many pounds of sugar per ton of cane supplied, irrespected of actual recoveries.

4. — It is hardly necessary to point out that this is not a question of diminished profits to factory owners, but one of aggravated loss resulting from the effects of the hurricane.

At prevailing world prices, and taking into account Imperial Preference on the existing scale, the Industry as a whole is carried on at a loss. Every ton of cane short crushed by the mills therefore translates into an aggravation of such loss, even in normal crop years. In the circumstances peculiar to this year's milling campaign, as briefly alluded to above, a further serious enhancement of the loss is induced by hurricane damage to growing crops.

5. — The consequences to mill owners, after a succession of desastrous years, need not be enlarged upon, and the Bureau of the Chamber feels assured that these are viewed by His Excellency the Governor with just concern.

6. — The Bureau deem it their duty to bespeak His Excellency's particular attention to the fact that, if denied relief out of the Hurricane Loan in respect of the shortage in output of sugar from planters' canes (which, as His Excellency well knows, forms a vital element of their activities), mill owners will be left with no recourse other than to make further, and increased, calls on already much taxed local sources, in order to carry on till next year.

His Excellency is too well acquainted with local conditions to require further asseveration from our part, that, in view of the financial strigency brought about in this island by a succession of disastrous sugar years and latterly so critically aggravated, such contingency cannot be contemplated without extreme concern.

On the other hand, enough has been said, we venture to submit to make it perfectly clear that the sought-for compensation—or part-compensation— for their dire shortage in receipts will be required by the mill-owners for the vital purpose of coping with the barest necessities of " carrying on " and keeping their dependents in work.

7. — There is a further aspect of the matter, of more extensive bearing, to which the Bureau would also beg to attract His Excellency's attention. As early as the 21st February 1930, in a memorandum on the

then " Urgency of the Position ", we felt it to be our bounden duty to urge upon Government the acute financial stringency which was already affecting the whole economic structure of this colony, through the sugar industry, and we preferred an instant plea for measures calculated to provide a sorely-needed influx of " new money ".

The Bureau has since that time reiterated the same plea on several occasions, before the visitation which struck the Island in March last.

The stringency alluded to, as stated above, far from abating meanwhile, has now been dangerously enhanced and rendered more critical by the effects of the hurricane on the current year's prospective sugar production.

It is obvious, therefore, that a highly essential element of usefulness in the operation of the Hurricane Loan would be : that allocations made under it should provide replacement (or part replacement on a scale as nearly commensurate as possible) of the deficit on the proceeds of exported sugar, consequent on the destruction of crops by the Hurricane.

Legislation calculated to restrict the scope of the Loan and curtail the agregate amount of the allocations to be made under the Loan for the relief of the sugar industry, would (it is idle further to demonstrate) gravely compromise the attainment of the above highly important object.

8. — We beg leave to adduce, in addition, the fact that in many cases accomodation has been made forthcoming to factory owners and planters on the strength of the intimation given under instructions from the Secretary of State, that advances would be granted to cover loss due to the hurricane by way of damage to property, stock etc : and loss of growing crops. Should the scope of such assistance be curtailed as appears contemplated in the proposed amending Bill, a difficult situation would arise in this connection.

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M. Jules Leclézio dit qu'il espère que tout le monde est d'accord pour approuver les termes de la Résolution. Il exprime l'espoir que le Bureau de la Chambre pourra se rendre auprès du Gouverneur avec un mandat de tous les planteurs et avec un vote témoignant de la confiance unanime de ceux-ci dans le Bureau.

Le vice-président ne doute pas le moindrement que la demande de la Chambre ne soit agréée, non seulement parce qu'elle est juste, mais aussi parce que, tant à la Chambre des Communes qu'au Comité de celle-ci, différents orateurs ont fait voir la sympathie qu'ils ont pour l'Ile Maurice et ont clairement laissé entendre qu'ils avaient dans l'esprit d'aider les usiniers. De plus, les engagements pris dans leur discours par les représentants du Gouvernement impérial et par le Gouvernement colonial dans son communiqué sont clairs. Ils démontrent que les usiniers devaient bénéficier d'une aide.

De plus, sur ces engagements, sur la fois des traités, les banques, les maisons de commerce ont consenti des crédits. Quelle sera leur situation maintenant ? Comment croire que la demande aussi juste de la Chambre sera rejetée ?

M. Leclézio ne peut faire l'injure à ceux qui sont à la tête du pays— du côté officiel, s'entend !—de croire qu'ils ne comprendront pas l'injustice

de l'amendement proposé. Il est certain que cet amendement vient de Downing Street, mais il est clair que l'homme intègre et intelligent qu'on a comme chef de la Colonie saura user de son influence pour faire triompher la justice. M. Leclézio dit que depuis le début des négociations entre la Chambre et le Gouvernement, les membres du Bureau de la Chambre ont été frappés par le désir du Gouverneur de rendre service à la Colonie. Le Gouverneur ne pourra pas ne pas se rendre compte de la juste requête de la Chambre. En conséquence, il ne pourra faire autrement que d'user de son influence auprès de Downing Street pour faire triompher son point de vue. M. Leclézio rappelle l'amendement qu'il a proposé en Conseil. Cet amendement n'a pu être accepté par le Gouvernement local et cela est malheureux, car les résultats auraient été bienfaisants pour l'industrie. Cet amendement a été soumis à Downing Street et jusqu'ici aucune réponse n'a été reçue. M. Leclézio espère que les deux demandes de la Chambre seront acceptées par le Bureau des Colonies. Il termine en demandant à tous ceux présents de ne pas hésiter à faire telles suggestions ou remarques qu'ils jugeraient nécessaires, afin que la résolution soit voté à l'unanimitée.

M. Pierre Adam demande au public d'adopter la Résolution.

M. Louis Espitalier-Noel pense qu'après les paroles pleines de bon sens des membres du Bureau de la Chambre, on n'a rien de plus à ajouter. Cependant, il pense qu'on ne peut se séparer sans dire aux membres du Bureau combien les planteurs leur sont reconnaissants de leur dévouement intelligent et éclairé. Il est d'avis que les planteurs n'ont qu'à adopter la Résolution et à témoigner ainsi leur confiance au Bureau.

Il est certain que la demande de la Chambre sera agréée par le gouvernement parce qu'elle est juste. L'on parle d'abolir les droits à une assistance qu'ont les *manufaeturers of sugar*. Au lieu de ces trois mots, on aurait pu mettre *manufacturers of public wealth*, car c'est de la fabricatlon du sucre que la colonie tire toute sa richesse. C'est aussi l'usinier qui supporte tout le fardeau. Il est, pour employer un terme populaire, le bœuf à Maurice. Par conséquent, personne plus que lui n'a droit à une assistance.

M. Montocchio dit que les membres du Bureau de la Chambre sont très sensibles aux éloges de M. Espitalier-Noel. Il assure à tous les planteurs que leur dévouement aux intérêts de l'industrie ne saurait faiblir. Si la Chambre ne réussit pas à obtenir ce dont les planteurs ont besoin, ce ne sera pas la faute du Bureau. M. Espitalier-Noel, parlant des usiniers, a dit qu'ils étaient "les bœufs à Maurice." M. Montocchio rappelle que les usiniers dépensent beaucoup pour les personnes qu'ils emploient. Ne bénéficiant d'aucune assistance, ils devront faire des économies.

M. Montocchio a déjà parlé des résultats désastreux obtenus de par la réalisation d'économies. Il espère n'avoir pas à insister sur ce douloureux sujet et dit qu'avec l'aide des planteurs, le Bureau de la Chambre, après le cyclone, a établi le bilan des pertes et a demandé une aide pour compenser celles-ci. Aucun chiffre ne fut cité. Une assistance va être accordée. Si l'usinier, malgré les garanties, ne pouvait en bénéficier, à quoi servirait-elle ? Les garanties demandées devraient suffire, car M. Montocchio pense qu'elles sont d'une exigence rare, bien difficile à satisfaire. Il ne croit pas que le Gouvernement, avec les garanties qu'il demande, puisse se montrer chiche et continuer, comme il a commencé à le faire, à mesurer au compte-goutte l'assistance qu'il veut nous donner.

M. Montocchio demande si tous les planteurs approuvent la Résolution.
Cris de " *Yes* " et de " Oui " !

M. Montocchio dit que si un planteur, qui n'est pas membre de la Chambre, veut faire des remarques, il prie ce planteur de ne pas se taire et de causer. La Résolution est non pas seulement celle de la Chambre, mais de tous les planteurs. (Appls)

M. Robinson.—Je n'ai qu'un mot à dire : je seconde la Résolution.

M. Montocchio déclare alors qu'il fera son possible pour que le Bureau de la Chambre puisse rencontrer le jour même S. E. le gouverneur et lui transmettre la Résolution.

La séance est alors levée.

Estimation revisée de la production sucrière pour la campagne 1931-32

Les conditions climatériques qui ont suivi notre estimation préliminaire de la coupe, à la fin de Mai, n'ont pas été de nature à améliorer la situation.

La pluviosité a été, généralement, très déficitaire, tandis que la température était, au contraire, fort au-dessus de la Normale. Au Réduit, la température moyenne de Juin fut de 1.9°C au-dessus de la moyenne ; celle de Juillet, de 1.0° au dessus ; celle d'Août, de 0.6 au-dessus et celle de Septembre, de 0.8 au-dessus.

L'estimation préliminaire de 245 mille tonnes, *sans cyclone*, était basée sur des conditions météorologiques approchant de la Normale, de Juin à Août. Tel n'a pas été le cas et, même s'il n'y avait pas eu de cyclone, il aurait fallu réduire les prévisions de 5 à 6 mille tonnes. Ainsi, sans le cyclone, la production aurait, probablement, été dans les environs de 238 mille tonnes.

Les pertes occasionnées par le cyclone restent, bien entendu, ce qu'elles ont été : mais le total anticipé maintenant est inférieur à celui prévu à la fin de Mai, du fait des conditions météorologiques défavorables qui ont prévalu depuis Mai.

Voici, en milliers de tonnes, l'estimation fin-Août, comparée à celle de fin-Mai :

Districts	Estimation Revisée	Préliminaire	1930
Pamplemousses & Riv. du Rempart ...	45	54	43.0
Flacq	30	32	37.8
Moka	23	23	32.1
Plaines Wilhems... ...	13	13	14.6
Rivière Noire	7	8	9.8
Savanne	28	27	37.1
Grand Port	32	32	46.5
Total ...	178	189	220.9

La marge d'incertitude reste, encore, considérable et il ne serait pas impossible que la production vraie fût au-dessus de la plus faible des deux estimations.

1.10.31 M. KŒNIG.